

# Influenza Surveillance in Ireland – Weekly Report

Influenza Week 40 2020 (28<sup>th</sup> September – 4<sup>th</sup> October 2020)



 **Intensive Care Society of Ireland**

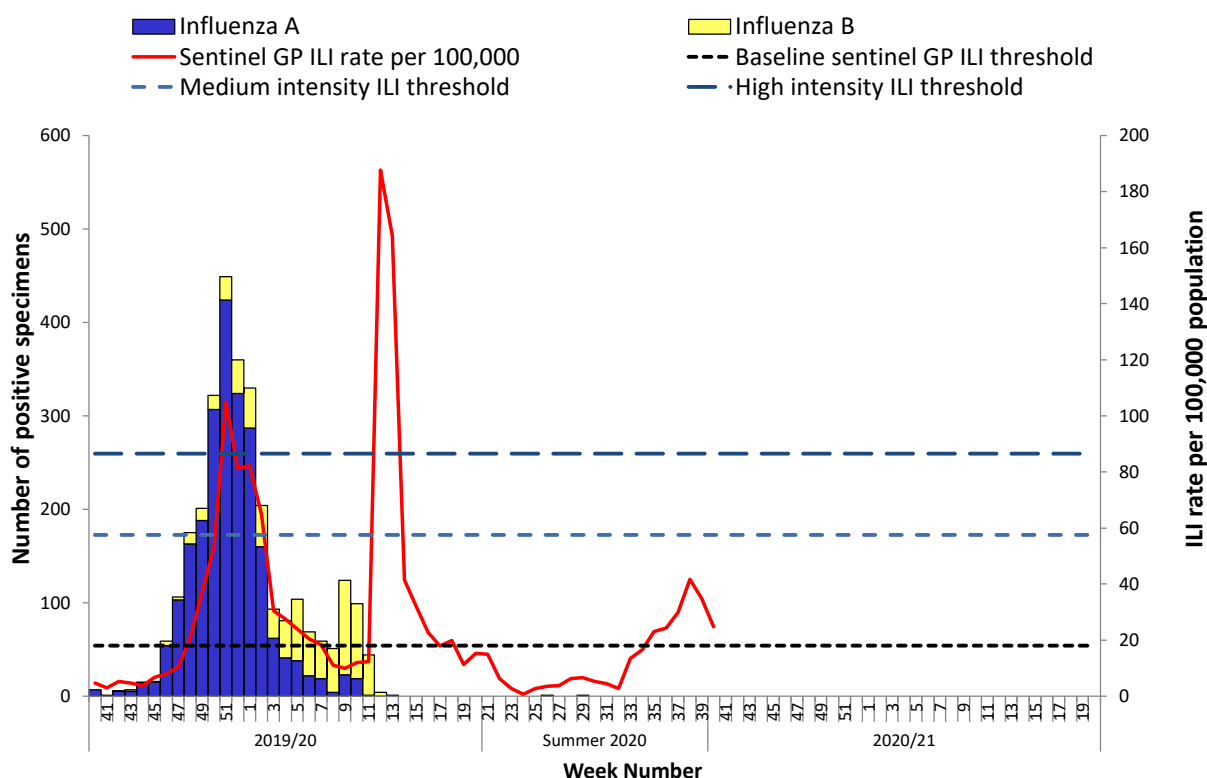
## Summary

This is the first influenza surveillance report of the 2020/2021 influenza season. There was no evidence of influenza virus circulation in Ireland during week 40 2020 (week ending 04/10/2020). Limited influenza testing at this time should be considered when interpreting these data. An increase in rhinovirus and enterovirus detections were reported in September 2020, as usually occurs at this time of year when schools re-open. COVID-19 epidemiology reports are published on [www.hpsc.ie](http://www.hpsc.ie).

- **Influenza-like illness (ILI):** The sentinel GP influenza-like illness (ILI) consultation rate was 24.8/100,000 population in week 40 2020, a decrease compared to the updated rate of 34.8/100,000 during week 39.
  - Sentinel GP ILI consultation rates have been above the Irish baseline threshold (18.1/100,000 population) for six consecutive weeks, reflecting COVID-19, rather than influenza activity.
  - Sentinel GP ILI age specific rates have increased in those aged ≥65 years since week 38 2020 (week ending 20/09/2020), compared to previous weeks, with a small decline noted in week 40 2020. Age specific rates in those <65 years have declined, following higher rates during September.
- **GP Out of Hours:** The proportion of self-reported cough calls to GP Out-of-Hours services decreased in all age groups during week 40 2020, following recent increases throughout September.
- **National Virus Reference Laboratory (NVRL):**
  - No confirmed influenza positive specimens were reported from the NVRL during week 40 2020.
  - Virological surveillance with the Irish sentinel GP network will resume in the coming weeks.
  - Of 112 non-sentinel specimens tested during week 40 2020, all were negative for influenza and respiratory syncytial virus (RSV).
  - Rhinovirus and enterovirus positive detections increased in September and declined slightly in week 40 2020. Sporadic detections of adenovirus and bocavirus were reported during week 40.
  - During the summer period (weeks 21-39 2020), one influenza A(H1N1)pdm09 during week 26 2020 and one influenza B during week 29 2020 were reported by the NVRL. Sporadic detections of human metapneumovirus, adenovirus, RSV and parainfluenza virus were also reported.
- **Influenza and RSV notifications:** No confirmed influenza or RSV cases were notified during week 40 2020. During the summer period, there were 18 late influenza notifications from February and March 2020 and one hospitalised influenza case detailed below.
- **Hospitalisations and Critical care admissions:** No confirmed influenza hospitalised or critical care cases were notified to HPSC during week 40 2020. One confirmed influenza B paediatric hospitalised case was detected during week 29 2020 (week ending 19/07/2020).
- **Mortality:** There were no reports of deaths occurring in notified influenza cases during week 40 2020 or the summer 2020 period. There have been no excess deaths reported in Ireland since May 2020.
- **Outbreaks:** No influenza, RSV or acute respiratory infection (ARI - excluding COVID-19) outbreaks were reported to HPSC during week 40 2020. During the summer period, only one ARI (SARS-CoV-2 negative) outbreak was notified from HSE-North East during week 29 2020.
- **International:** Globally, influenza activity was reported at lower levels than expected for this time of the year. The World Health Organization (WHO) have advised that current influenza surveillance data should be interpreted with caution, due to the impact of COVID-19 on influenza surveillance.

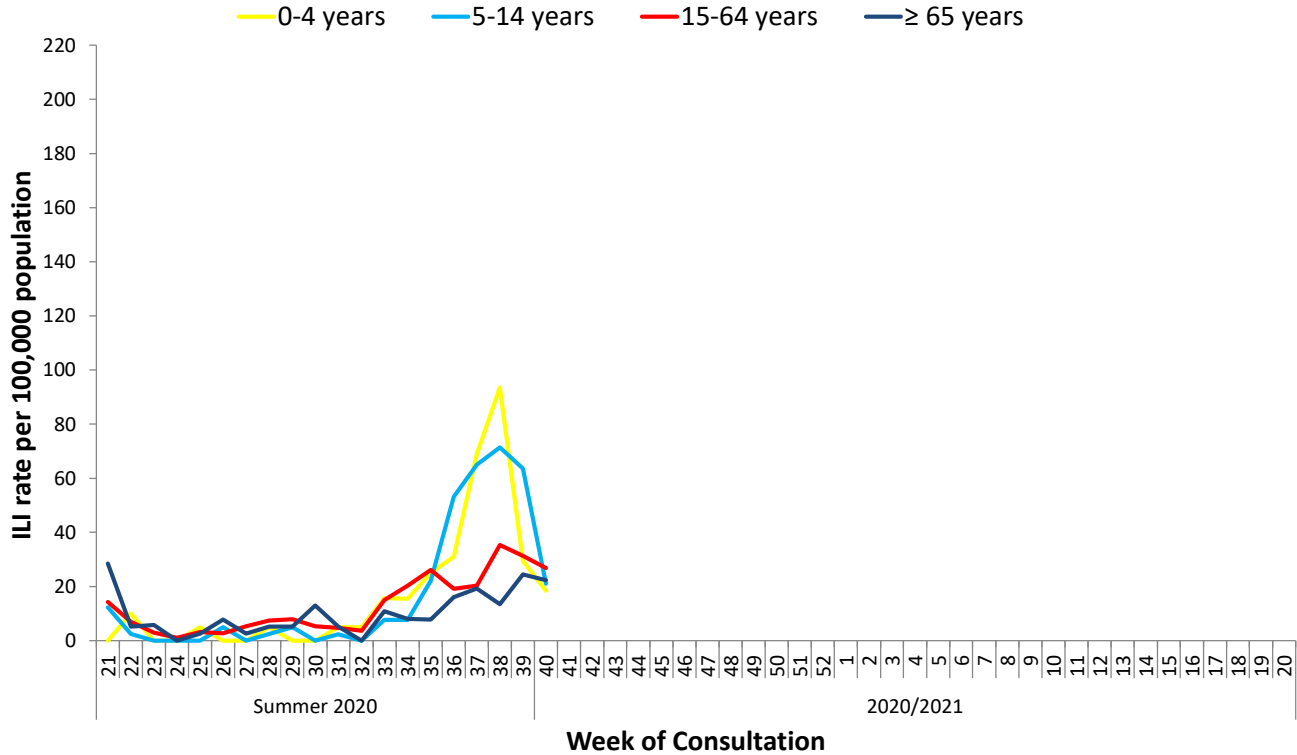
## 1. GP sentinel surveillance system - Clinical Data

- During week 40 2020, 58 influenza-like illness (ILI) cases were reported from the Irish sentinel GP network, corresponding to an ILI consultation rate of 24.8 per 100,000 population, a decrease compared to the updated rate of 34.8 per 100,000 reported during week 39 2020 (Figure 1). On the 09/03/2020, GP ILI consultations changed from face to face consultations to phone consultations.
- The sentinel GP ILI consultation rate has been above the Irish sentinel GP ILI baseline threshold (18.1/100,000 population) for six consecutive weeks, reflecting circulation of SARS-CoV-2 in the community, rather than influenza viruses.
- Sentinel GP ILI age specific consultation rates in those aged  $\geq 65$  years were 22.4/100,000 during week 40 2020, a slight decrease from 24.5/100,000 in week 39, however higher than week 38 2020 (13.5/100,000). Age specific rates in those aged 0-4 (18.4/100,000), 5-14 (21.1/100,000) and 15-64 (26.8/100,000) years declined during week 40 2020, following higher rates in September (Figure 2).
- HPSC in consultation with the European Centre for Disease Prevention and Control (ECDC) have reviewed the Irish sentinel baseline ILI threshold for the 2020/2021 influenza season, which will remain at 18.1 per 100,000 population. ILI rates above this baseline threshold combined with sentinel GP influenza positivity  $>10\%$  indicates the likelihood that influenza is circulating in the community. The Moving Epidemic Method (MEM) is used to calculate thresholds for GP ILI consultations in a standardised approach across Europe. The baseline ILI threshold (18.1/100,000 population), medium (57.5/100,000 population) and high (86.5/100,000 population) intensity ILI thresholds are shown in figure 1. Age specific MEM threshold levels are shown in Table 1.



**Figure 1:** Sentinel GP Influenza-like illness (ILI) consultation rates per 100,000 population, baseline ILI threshold, medium and high intensity ILI thresholds and number of positive influenza A and B specimens tested by the NVRL, by influenza week and season. *Source: ICGP and NVRL\**

\* Influenza testing has been minimal since March 2020 due to the COVID pandemic and caution is advised interpreting laboratory influenza detections from March-September 2020



**Figure 2:** Age specific sentinel GP ILI consultation rate per 100,000 population by week during the summer of 2020 and the 2020/2021 influenza season to date. *Source: ICGP.*

Sentinel GP ILI Threshold Levels	Below Baseline	Low	Moderate	High	Extraordinary
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Sentinel GP ILI consultation/100,000 pop.	Week of GP Phone Consultation									
	31	32	33	34	35	36	37	38	39	40
All Ages	4.5	2.8	13.5	16.6	23.1	24.4	29.9	41.6	34.8	24.8
<15 yrs	3.3	1.7	10.3	10.2	23.1	45.9	66.3	78.7	52.3	20.2
15-64 yrs	4.8	3.7	15.0	20.4	26.1	19.2	20.3	35.4	31.3	26.8
≥65 yrs	5.2	0.0	10.9	8.1	7.8	16.1	19.3	13.5	24.5	22.4
Number of reporting practices (N=58)	58	57	57	56	57	56	54	55	51	45

**Table 1:** Age specific sentinel GP ILI consultation rate per 100,000 population by week (weeks 31-40 2020), colour coded by sentinel GP ILI age specific Moving Epidemic Method (MEM) threshold levels. *Source: ICGP.*

## 2. Influenza and Other Respiratory Virus Detections - NVRL

The data reported in this section for the 2020/2021 influenza season refers to sentinel and non-sentinel respiratory specimens routinely tested for influenza, respiratory syncytial virus (RSV), adenovirus, parainfluenza virus types 1-4 (PIV-1-4), human metapneumovirus (hMPV) and rhino/enteroviruses by the National Virus Reference Laboratory (NVRL) (tables 2 & 3).

- No confirmed influenza positive specimens were reported from the NVRL during week 40 2020.
- The COVID-19 pandemic caused disruption to sentinel GP influenza networks across the globe. In Ireland, virological surveillance for influenza and respiratory syncytial virus (RSV), with the Irish sentinel GP network is being integrated into current testing structures for COVID-19 referrals and will resume in the coming weeks.
- Of 112 non-sentinel specimens tested during week 40 2020, all were negative for influenza and RSV, Tables 2 and 3.
- Rhinovirus and enterovirus positive detections increased in September and declined slightly in week 40 2020. Sporadic detections of adenovirus and bocavirus were reported during week 40 2020 (Table 3).
- During the summer period (weeks 21-39 2020), 2327 non-sentinel specimens were tested for influenza by the NVRL and only 2 (<0.1%) were positive: one influenza A(H1N1)pdm09 during week 26 2020 and one influenza B during week 29 2020. Sporadic detections of human metapneumovirus, adenovirus, RSV and parainfluenza virus were also reported.

**Table 2:** Number of sentinel and non-sentinel<sup>†</sup> respiratory specimens tested by the NVRL and positive influenza results, for week 40 2020. *Source: NVRL*

Week	Specimen type	Total tested	Number influenza positive	% Influenza positive
40 2020	Sentinel GP	Testing to resume following integration into COVID-19 referral pathways		
	Non-sentinel	112	0	0.0
	<b>Total</b>	<b>112</b>	<b>0</b>	<b>0.0</b>

**Table 3:** Number of non-sentinel specimens tested by the NVRL for other respiratory viruses and positive results, for week 40 2020. *Source: NVRL*

	Number	Percentage
<b>Total tested</b>	112	100
<b>RSV positive</b>	0	0
<b>Adenovirus positive</b>	2	1.8
<b>Rhino/enterovirus positive</b>	18	16.1
<b>Bocavirus positive</b>	1	0.9

<sup>†</sup> Please note that non-sentinel specimens relate to specimens referred to the NVRL (other than sentinel specimens) and may include more than one specimen from each case.

### 3. Regional Influenza Activity by HSE-Area

Regional influenza activity levels will be based on laboratory confirmed influenza cases and/or outbreaks.

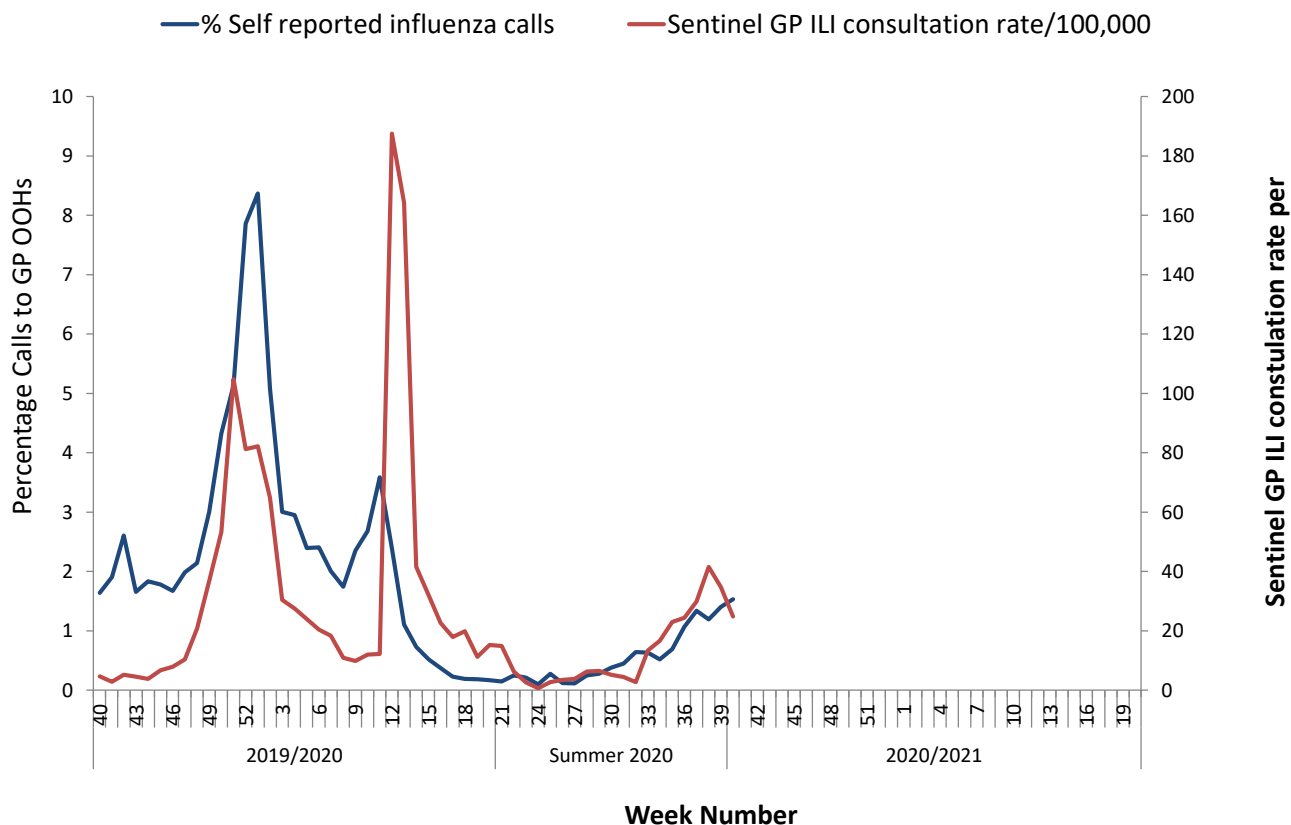
As no confirmed influenza viruses have been detected in Ireland during week 40 2020, **no confirmed influenza activity was reported for all HSE-Areas**. Geographic spread of influenza viruses is based on laboratory confirmed influenza case/outbreak data.

### 4. GP Out-Of-Hours services surveillance

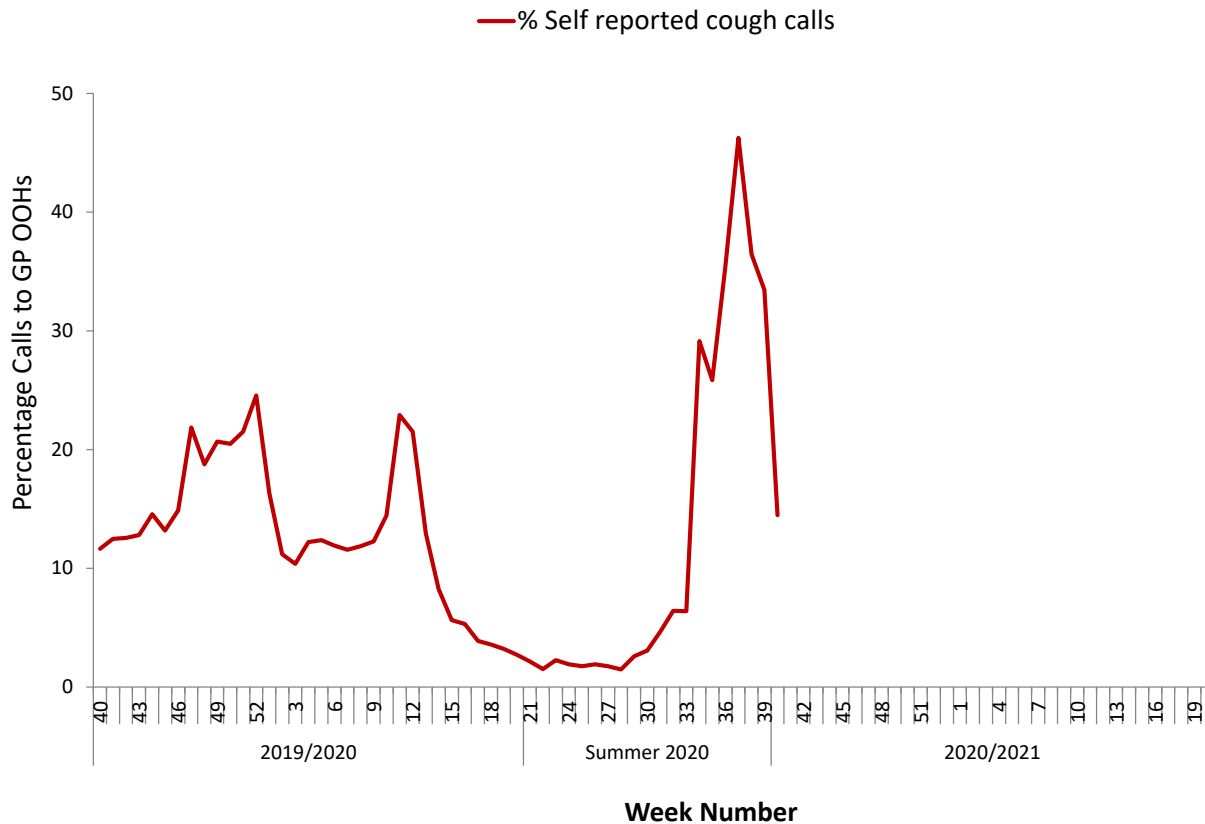
The Department of Public Health in HSE-NE is collating national data on calls to nine of thirteen GP Out-of-Hours services in Ireland. Records with clinical symptoms reported as flu/influenza or cough are extracted for analysis. This information may act as an early indicator of circulation of influenza, SARS-CoV-2 or other respiratory viruses. Data are self-reported by callers and are not based on coded diagnoses.

The proportion of influenza-related calls to GP Out-of-Hours services was at low levels during week 40 2020 at 1.5% (120/7831), remaining stable compared to 1.4% (159/11303) for week 39 2020. Increases in the proportion of influenza-related calls to GP Out-of-Hours services occurred throughout September; this increase is usually observed each September when schools return from the summer break (Figure 3).

The proportion of self-reported cough calls to GP Out-of-Hours services decreased to 14.5% (1133/7831) during week 40 2020, following recent significant increases throughout September (Figure 4).



**Figure 3: Self-reported FLU-related calls as a proportion of total calls to Out-of-Hours GP Co-ops and sentinel GP ILI consultation rate per 100,000 population by week and season. Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.**



**Figure 4: Self-reported COUGH calls as a proportion of total calls to Out-of-Hours GP Co-ops by week and season.** Source: GP Out-Of-Hours services in Ireland (collated by HSE-NE) & ICGP.

### 5. Influenza & RSV notifications

Influenza and RSV cases notifications are reported on Ireland’s Computerised Infectious Disease Reporting System (CIDR), including all positive influenza /RSV specimens reported from all laboratories testing for influenza/RSV and reporting to CIDR.

Influenza and RSV notifications are reported in the [Weekly Infectious Disease Report for Ireland](#). No confirmed influenza or RSV notifications were reported during week 40 2020. During the summer period (weeks 21-39 2020), there were 18 late influenza notifications from February and March 2020 and one hospitalised influenza case detailed below. During the summer period, five sporadic RSV notifications were reported to HPSC.

### 6. Influenza Hospitalisations

No confirmed influenza hospitalised cases were notified to HPSC during week 40 2020. During the summer period (weeks 21-39 2020), one confirmed influenza B paediatric hospitalised notified case was detected during week 29 2020 (week ending 19/07/2020).

## 7. Critical Care Surveillance

The Intensive Care Society of Ireland (ICSI) and the HSE Critical Care Programme are continuing with the enhanced surveillance system set up during the 2009 pandemic, on all critical care patients with confirmed influenza. HPSC processes and reports on this information on behalf of the regional Directors of Public Health/Medical Officers of Health.

No confirmed influenza cases were admitted to critical care and reported to HPSC during week 40 2020 or during the summer 2020 period.

## 8. Mortality Surveillance

Influenza-associated deaths include all deaths where influenza is reported as the primary/main cause of death by the physician or if influenza is listed anywhere on the death certificate as the cause of death. HPSC receives daily mortality data from the General Register Office (GRO) on all deaths from all causes registered in Ireland. These data have been used to monitor excess all-cause and influenza and pneumonia deaths as part of the influenza surveillance system and the European Mortality Monitoring Project. These data are provisional due to the time delay in deaths' registration in Ireland. <http://www.euromomo.eu/>

- There were no reports of any deaths occurring in notified influenza cases occurring during week 40 2020.
- During week 40 2020, no excess all-cause mortality was reported in Ireland after correcting GRO data for reporting delays with the standardised EuroMOMO algorithm. There have been no excess deaths reported in Ireland since May 2020.

## 9. Outbreak Surveillance

COVID-19 outbreaks are not included in this report; surveillance data on COVID-19 outbreaks are detailed on the HPSC website. <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casesinireland/>

No influenza, RSV or acute respiratory infection (ARI - excluding COVID-19) outbreaks were notified to HPSC during week 40 2020. During the summer period (weeks 21-39 2020), only one ARI (SARS-CoV-2 negative) outbreak in a nursing home was notified from HSE-North East in week 29 2020, no pathogen was identified.

## 10. International Summary

Since the start of the COVID-19 pandemic, influenza activity globally has remained at low levels. The World Health Organization (WHO) have advised that current influenza surveillance data should be interpreted with caution as the ongoing COVID-19 pandemic has influenced health seeking behaviours, surveillance and reporting in sentinel sites, as well as testing priorities and capacities in Member States. The various hygiene and physical distancing measures implemented by Member States to reduce SARS-CoV-2 virus transmission have likely played a role in reducing influenza virus transmission.

Globally, influenza activity was reported at lower levels than expected for this time of the year. In the European region, influenza activity is low with out-of-season baseline/low intensity levels in all reporting countries during weeks 21 – 39 2020. Of 1,523 specimens from sentinel primary health care settings tested for influenza viruses in weeks 21-39 2020, 3 (0.2%) tested positive (one each of A(H3N2), B/Victoria lineage and type B no lineage ascribed). ECDC has also reported a small number of sporadic influenza detections from non-sentinel sources in Europe in recent weeks. See [ECDC](#) and [WHO](#) influenza surveillance reports for further information.

- Further information on influenza is available on the following websites:
  - Europe – ECDC <http://ecdc.europa.eu/>
  - Public Health England <https://www.gov.uk/government/collections/weekly-national-flu-reports>
  - United States CDC <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>
  - Public Health Agency of Canada <http://www.phac-aspc.gc.ca/fluwatch/index-eng.php>
- Influenza case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/influenza/casedefinitions/>
- COVID-19 case definition in Ireland <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/>
- Avian influenza overview May – August 2020 <https://www.ecdc.europa.eu/en/publications-data/avian-influenza-overview-may-august-2020>
- Avian influenza: EU on alert for new outbreaks <https://www.ecdc.europa.eu/en/news-events/avian-influenza-eu-alert-new-outbreaks>
- Information on COVID-19 in Ireland is available on the HPSC website <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/>
- The WHO categorised COVID-19 as a pandemic on 11 March 2020. For more information about the situation in the WHO European Region visit:
  - WHO website: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
  - ECDC website: <https://www.ecdc.europa.eu/en/novel-coronavirus-china>

## 11. WHO recommendations on the composition of influenza virus vaccines

The WHO vaccine strain selection committee recommend that quadrivalent egg-based vaccines for use in the 2020/2021 northern hemisphere influenza season contain the following:

- an A/Guangdong-Maonan/SWL1536/2019 (H1N1)pdm09-like virus;
- an A/Hong Kong/2671/2019 (H3N2)-like virus;
- a B/Washington/02/2019 (B/Victoria lineage)-like virus; and
- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

[https://www.who.int/influenza/vaccines/virus/recommendations/2020-21\\_north/en/](https://www.who.int/influenza/vaccines/virus/recommendations/2020-21_north/en/)

Further information on influenza in Ireland is available at [www.hpsc.ie](http://www.hpsc.ie)

### Acknowledgements

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